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Feeney: Apply tech training, simulation to benefit medical research, boost economy

U.S. Rep. Tom Feeney

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As policymakers seek to diversify Florida's economy, they should leverage existing high-technology successes. Central Florida has such an opportunity to improve medical training by utilizing the region's demonstrated excellence in modeling, simulation and training.

Aircraft training simulators provide a well-known example of this technology. Simulation combines sound, sight and motion to make you feel that you are experiencing an actual event. Modeling involves the complex computer models used to create these artificial environments.

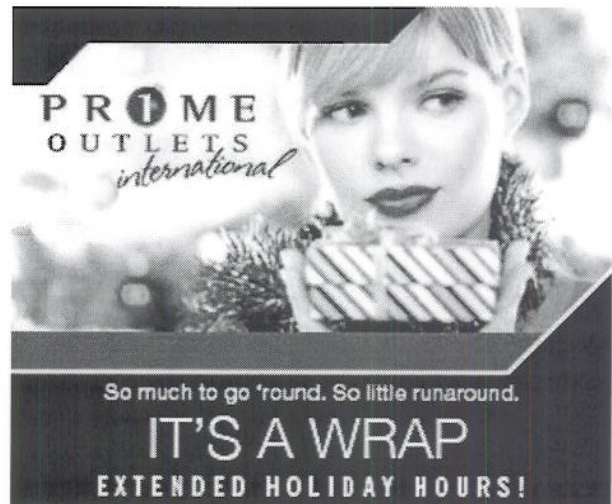
For training purposes, modeling and simulation place people in an artificial but seemingly real environment -- like flying -- and put them through their paces. But unlike "live" training, if you make a mistake, you live another day and learn valuable lessons. An inestimable number of lives have been saved that otherwise might have been lost in training accidents while improving the overall quality of training.

Central Florida has the largest modeling, simulation and training cluster in the United States. The Navy's NAV-AIR Orlando, the Marine's PM Training Systems, and the Army's PEO-STRI -- developers and purchasers of military training systems -- are based in my 24th Congressional District. More than 100 such companies directly employ more than 6,000 people. Along with the University of Central Florida and the National Center for Simulation, this complex web of cooperation, collaboration and partnerships is known as Team Orlando.

Our military revolutionized fighting war by emphasizing high-fidelity training -- Team Orlando's specialty -- that simulates the stress and decision-making of actual combat. Servicemen and women gain experience and judgment previously only earned on the actual battlefield.

Medical simulation could similarly revolutionize medical training.

Historically, such training primarily involved the memorization of textbook and lecture material -- an



emphasis on theoretical knowledge and not on practical application. Then one learned from trial and error on live patients -- an arduous process if you've ever endured an IV insertion from an earnest but inexperienced trainee.

In contrast, medical simulation -- training on sophisticated, interactive mannequins and other simulators -- develops the confidence, skill and teamwork needed to treat actual patients.

Such training has improved treatment of combat injuries and driven down fatalities for these most preventable battlefield killers: collapsed lungs, airway compromises and bleeding. Medical simulation places students in realistic battlefield scenarios -- such as a darkened scene filled with smoke and the sounds of explosions -- as they deal with simulated traumatic injuries.

Because of this success, I have worked to establish the Joint Medical Simulation Technology Research and Development Center in Orlando. The center will coordinate Army medical simulation research and development by more closely linking training needs with demonstrated expertise.

In civilian medical care, medical simulation can speed and improve the training of needed health-care professionals, drive down error rates and improve overall care.

With the advent of the UCF Medical School, the new VA hospital, and the Burnham Institute, we have a unique opportunity to integrate Team Orlando's proven modeling, simulation and training talents with the establishment of Orlando as a world-class medical-research center. Both communities should work together to harness demonstrated benefits.

Central Florida would gain additional high-tech, high-wage jobs. But more important, a revolution in medical training would bring everyone improved health care as medical professionals -- and better develop their talents to treat and heal.

U.S. Rep. Tom Feeney, an Ovideo Republican, represents District 24.

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